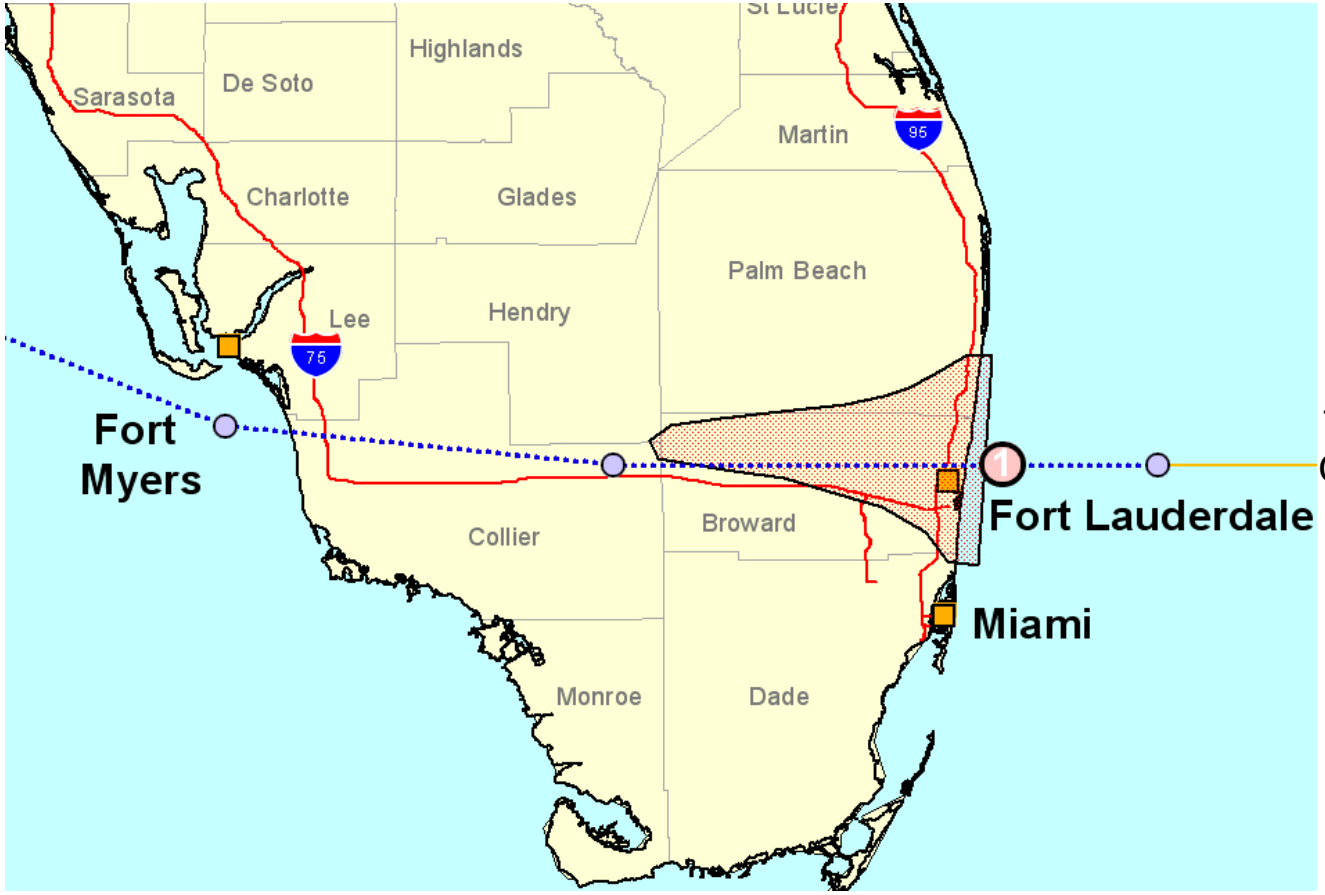
Hurricane Katrina Wind Distribution

Landfall Expected In Less Than **6** Hours

For Official Use Only!



Most Probable Landfall Wind Distribution

This model is based on a Category 1 storm making landfall in near proximity to Fort Lauderdale, FL.

Information provided on this page displays a Category 1 storm making landfall near Fort Lauderdale, FL. These projections are based on information from the NHC ***(1500 EDT 08/25/2005)*** forecast.

Details about this model may be obtained at https://englink.usace.army.mil or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers

Hurricane Katrina Wind Fields

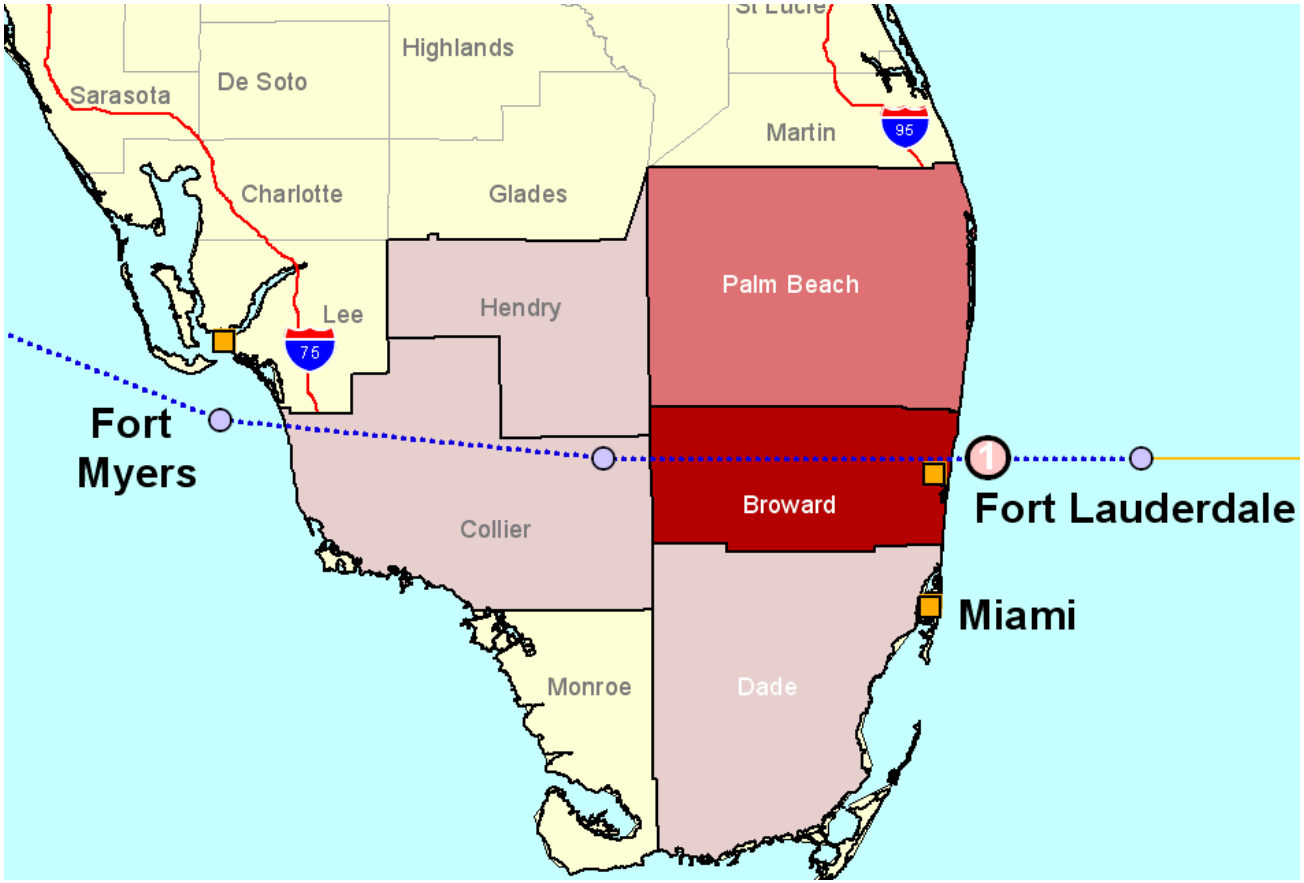
Generated By:
Terry Siemsen, LRL 1530 EDT 08/25/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Katrina Debris Model

Landfall Expected In Less Than **6** Hours

For Official Use Only!



Most Probable Landfall Debris Model Results

Florida – 2,150,000 yd^3

Model results per county on following page

This model is based on a Category 1 storm making landfall in near proximity to Fort Lauderdale, FL.

Information provided on this page displays a Category 1 storm making landfall near Fort Lauderdale, FL. These projections are based on information from the NHC ***(1500 EDT 08/25/2005)*** forecast. The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds.

Details about this model may be obtained at https://englink.usace.army.mil or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers

Hurricane Katrina Debris Model

Generated By:
Terry Siemsen, LRL 1530 EDT 08/25/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Katrina Debris Model

Landfall Expected In Less Than 6 Hours

For Official Use Only!

STATE	COUNTY	YARDS
Florida		
	Broward	1,698,000
	Collier	1,000
	Dade	39,000
	Hendry	1,000
	Palm Beach	411,000
TOTAL		2,150,000

The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds.

Details about this model may be obtained at https://englink.usace.army.mil or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers

Hurricane Katrina Debris Model

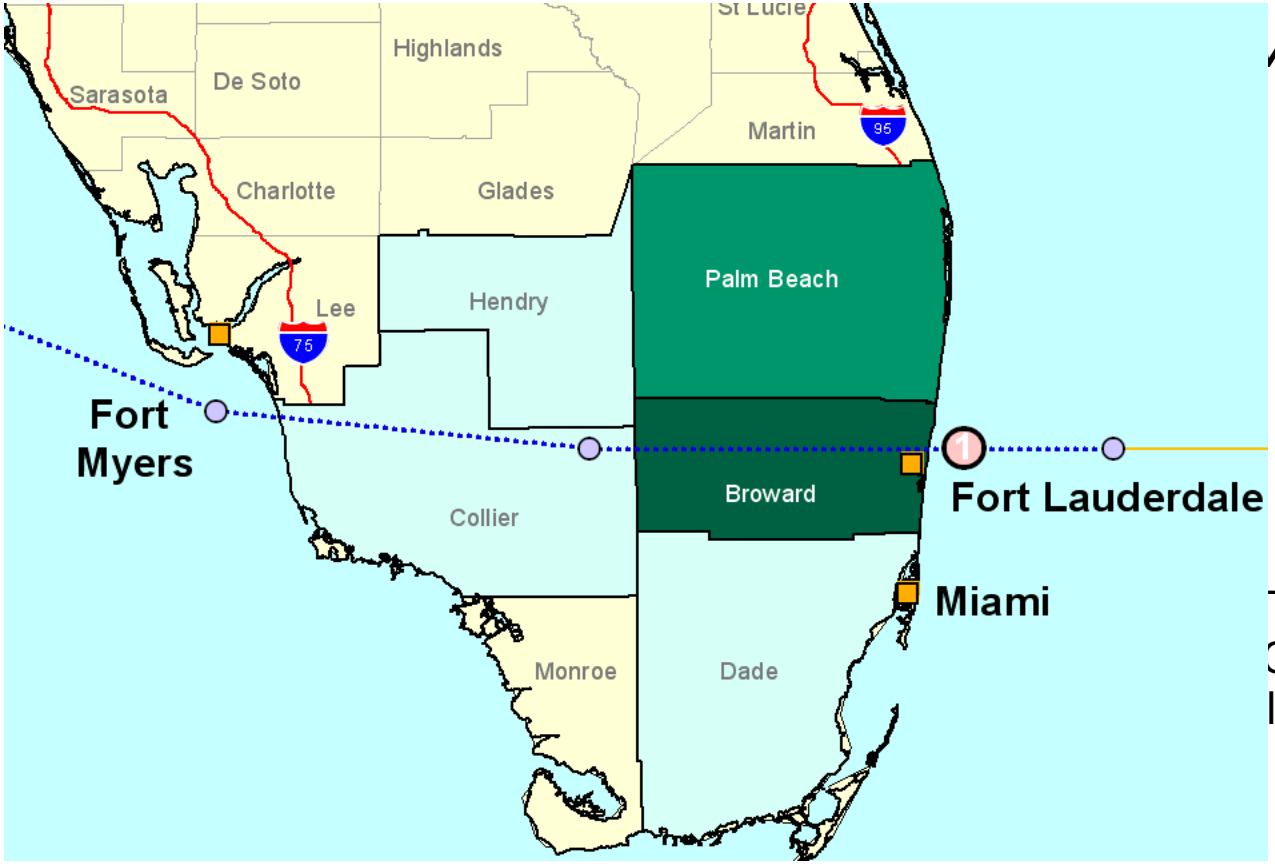
Generated By:
Terry Siemsen, LRL 1530 EDT 08/25/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Katrina Ice Model

Landfall Expected In Less Than 6 Hours

For Official Use Only!



Most Probable Landfall Ice Model Results

Florida –
50 Truckloads Day One
50 Truckloads Day Two
62 Truckloads Day Three

Model results per county on following page

This model is based on a Category 1 storm making landfall in near proximity to Fort Lauderdale, FL.

Information provided on this page displays a Category 1 storm making landfall near Fort Lauderdale, FL. These projections are based on information from the NHC ***(1500 EDT 08/25/2005)*** forecast. The amount of ice forecasted is based on Mission Guide Book requirements (8 pounds per day per person) and Ice SME input and represents a first day daily need.

Details about this model may be obtained at **https://englink.usace.army.mil** or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers

Hurricane Katrina Ice Model

Generated By:
Terry Siemsen, LRL 1530 EDT 08/25/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Katrina Ice Model

Landfall Expected In Less Than 6 Hours

For Official Use Only!

Ice/Water Commodities - Trucks/Distribution Lanes Ramp-up
(Number of Trucks Each Commodity and Lanes Anticipated - end of each day)

NHC Forecast Track	Day One (25%)*	Day Two (50%)*	Day Three (100%)*	Commodity Trucks Day 1-3 Total	Within Hurricane Force Winds Population	Households
Florida	50	50	62	162	1,540,000	654,000
Total	**50**	**50**	**62**	**162**	**1,540,000**	**654,000**

Key assumption is that establishment of distribution lanes will be the limiting factor.

* Assumption is that States/locals (FL is the * exception) will have the capability to establish about 25% of needed distribution lanes in the first 24 hours post-landfall, about 50% of needed distribution lanes in the first 48 hours after landfall, and all needed lanes by 72 hours post landfall. Florida, due to past experience, estimates they can establish up to 50 distribution lanes per day.

** **Assumption for Katrina** - Assumption is that 20 percent of the resident population will require ice/water due to power outages in areas experiencing hurricane force winds

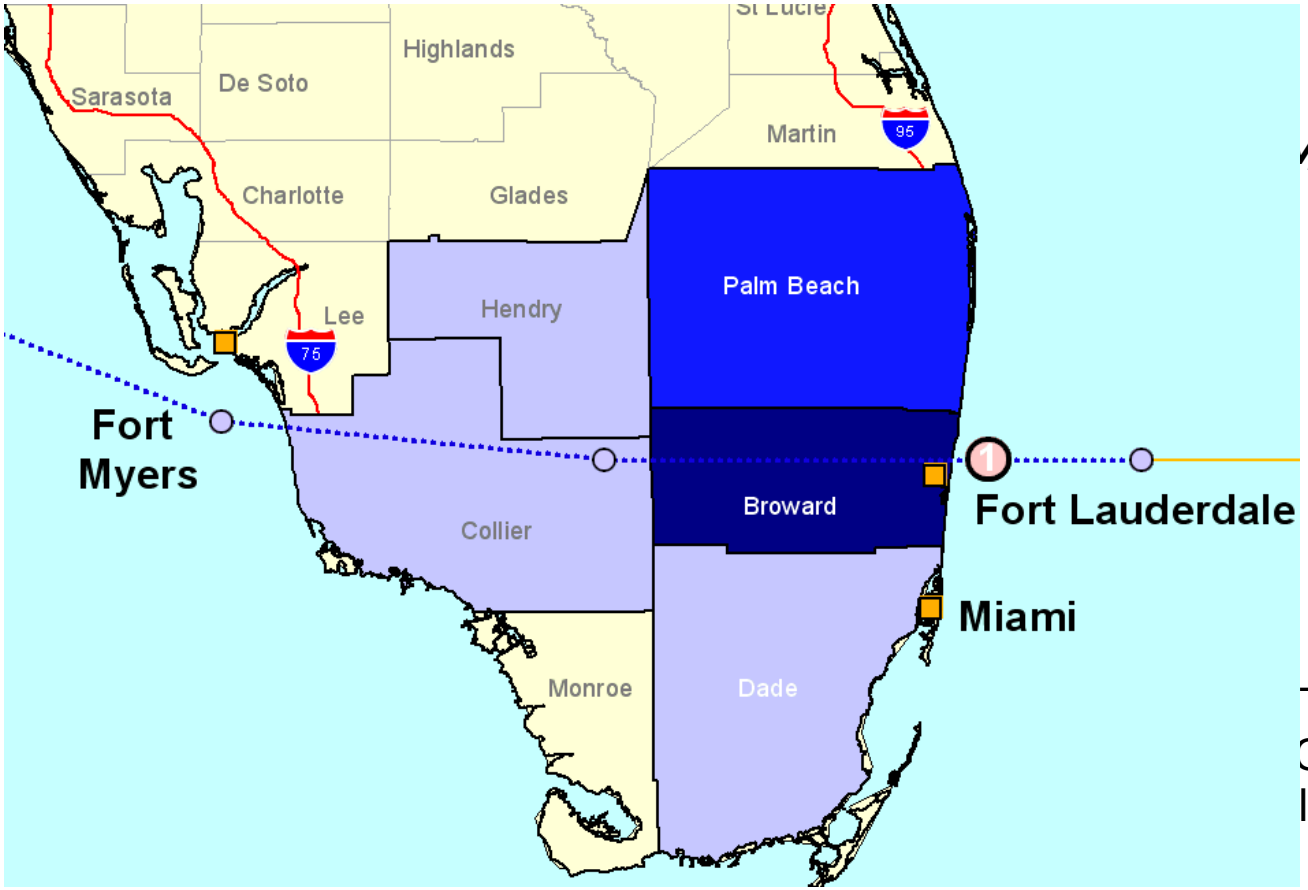
The amount of ice forecasted is based on Mission Guide Book requirements (8 pounds per person) and Ice SME input and represents a first day daily need. The assumption in this scenario is that 20% of the resident population affected by Katrina will have power outage in this area will cause a need for ice.

Details about this model may be obtained at
https://englink.usace.army.mil
or contact ENGLink at 1-877-936-4546

Hurricane Katrina Water Model

Landfall Expected In Less Than **6** Hours

For Official Use Only!



Most Probable Landfall Water Model Results

Florida –
50 Truckloads Day One
50 Truckloads Day Two
62 Truckloads Day Three

Model results per county on following page

This model is based on a Category 1 storm making landfall in near proximity to Fort Lauderdale, FL.

Information provided on this page displays a Category 1 storm making landfall near Fort Lauderdale, FL. These projections are based on information from the NHC ***(1500 EDT 08/25/2005)*** forecast. The amount of water forecasted is based on Mission Guide Book requirements (3 liters per person per day) and Water SME input and represents a first day daily need.

Details about this model may be obtained at **https://englink.usace.army.mil** or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers

Hurricane Katrina Water Model

Generated By:
Terry Siemsen, LRL 1530 EDT 08/25/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Katrina Water Model

Landfall Expected In Less Than 6 Hours

For Official Use Only!

Ice/Water Commodities - Trucks/Distribution Lanes Ramp-up
(Number of Trucks Each Commodity and Lanes Anticipated - end of each day)

NHC Forecast Track	Day One (25%)*	Day Two (50%)*	Day Three (100%)*	Commodity Trucks Day 1-3 Total	Within Hurricane Force Winds Population	Households
Florida	50	50	62	162	1,540,000	654,000
Total	**50**	**50**	**62**	**162**	**1,540,000**	**654,000**

Key assumption is that establishment of distribution lanes will be the limiting factor.

* Assumption is that States/locals (FL is the * exception) will have the capability to establish about 25% of needed distribution lanes in the first 24 hours post-landfall, about 50% of needed distribution lanes in the first 48 hours after landfall, and all needed lanes by 72 hours post landfall. Florida, due to past experience, estimates they can establish up to 50 distribution lanes per day.

** **Assumption for Katrina** - Assumption is that 20 percent of the resident population will require ice/water due to power outages in areas experiencing hurricane force winds

The amount of water forecasted is based on Mission Guide Book requirements (3 liters per person) and Water SME input and represents a first day daily need. The assumption in this scenario is that 20% of the resident population affected by Katrina will have power outage in this area will cause a need for water.

Details about this model may be obtained at https://englink.usace.army.mil

or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers

Hurricane Katrina Water Model

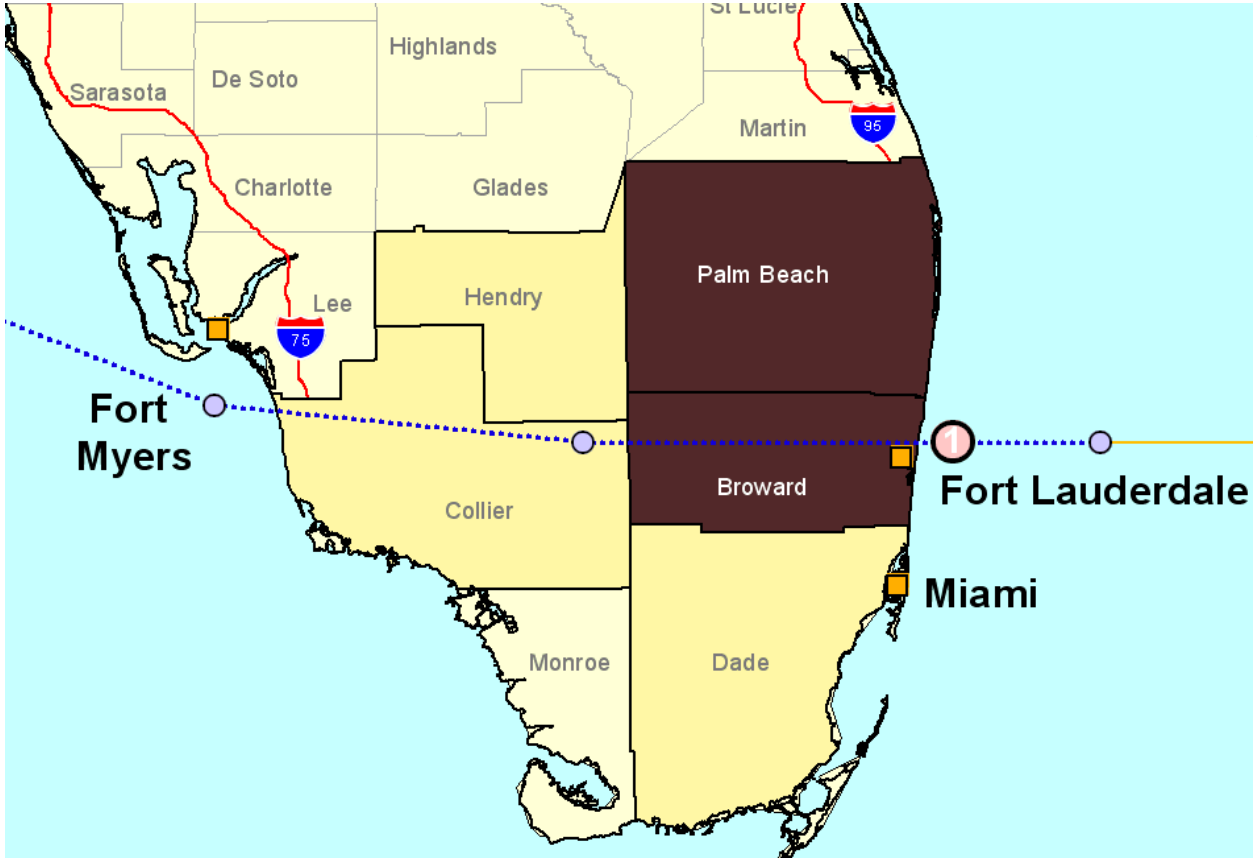
Generated By:
Terry Siemsen, LRL 1530 EDT 08/25/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Katrina Population Model

Landfall Expected In Less Than 6 Hours

For Official Use Only!



Most Probable Landfall Population Model Results

Florida – 1,540,000 persons

Model results per county on following page

This model is based on a Category 1 storm making landfall in near proximity to Fort Lauderdale, FL.

Information provided on this page displays a Category 1 storm making landfall near Fort Lauderdale, FL. These projections are based on information from the NHC ***(1500 EDT 08/25/2005)*** forecast. The number of persons included in this model output are those that would be included within estimated hurricane force winds (Census 2000 values).

Details about this model may be obtained at https://englink.usace.army.mil or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers **Hurricane Katrina Population Model**

Generated By: Terry Siemsen, LRL 1530 EDT 08/25/2005

Sources: HURREVAC LRL-DEBRIS

Hurricane Katrina Population Model

Landfall Expected In Less Than 6 Hours

For Official Use Only!

State	County	Population per County
Florida		
	Broward	1,244,000
	Collier	1,000
	Dade	20,000
	Hendry	1,000
	Palm Beach	274,000
TOTAL		1,540,000

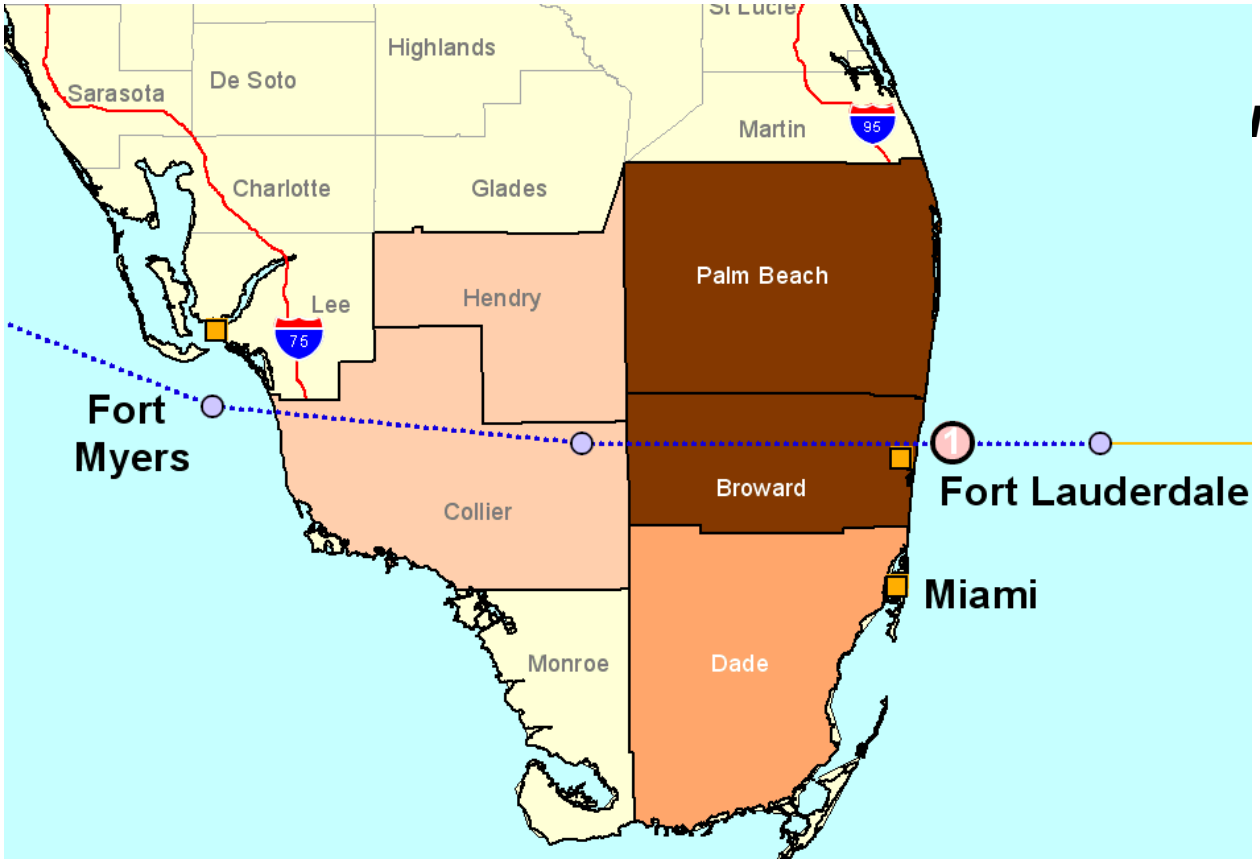
The number of persons estimated to be within hurricane force winds comes from Census 2000 values.

Details about this model may be obtained at https://englink.usace.army.mil or contact ENGLink at 1-877-936-4546

Hurricane Katrina Households Model

Landfall Expected In Less Than 6 Hours

For Official Use Only!



Most Probable Landfall Households Model Results

Florida – 654,000 households

Model results per county on following page

This model is based on a Category 1 storm making landfall in near proximity to Fort Lauderdale, FL.

Information provided on this page displays a Category 1 storm making landfall near Fort Lauderdale, FL. These projections are based on information from the NHC ***(1500 EDT 08/25/2005)*** forecast. The number of households included in this model output are those that would be included within estimated hurricane force winds (Census 2000 values).

Details about this model may be obtained at https://englink.usace.army.mil or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers

Hurricane Katrina Households Model

Generated By:
Terry Siemsen, LRL 1530 EDT 08/25/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Katrina Households Model

Landfall Expected In Less Than 6 Hours

For Official Use Only!

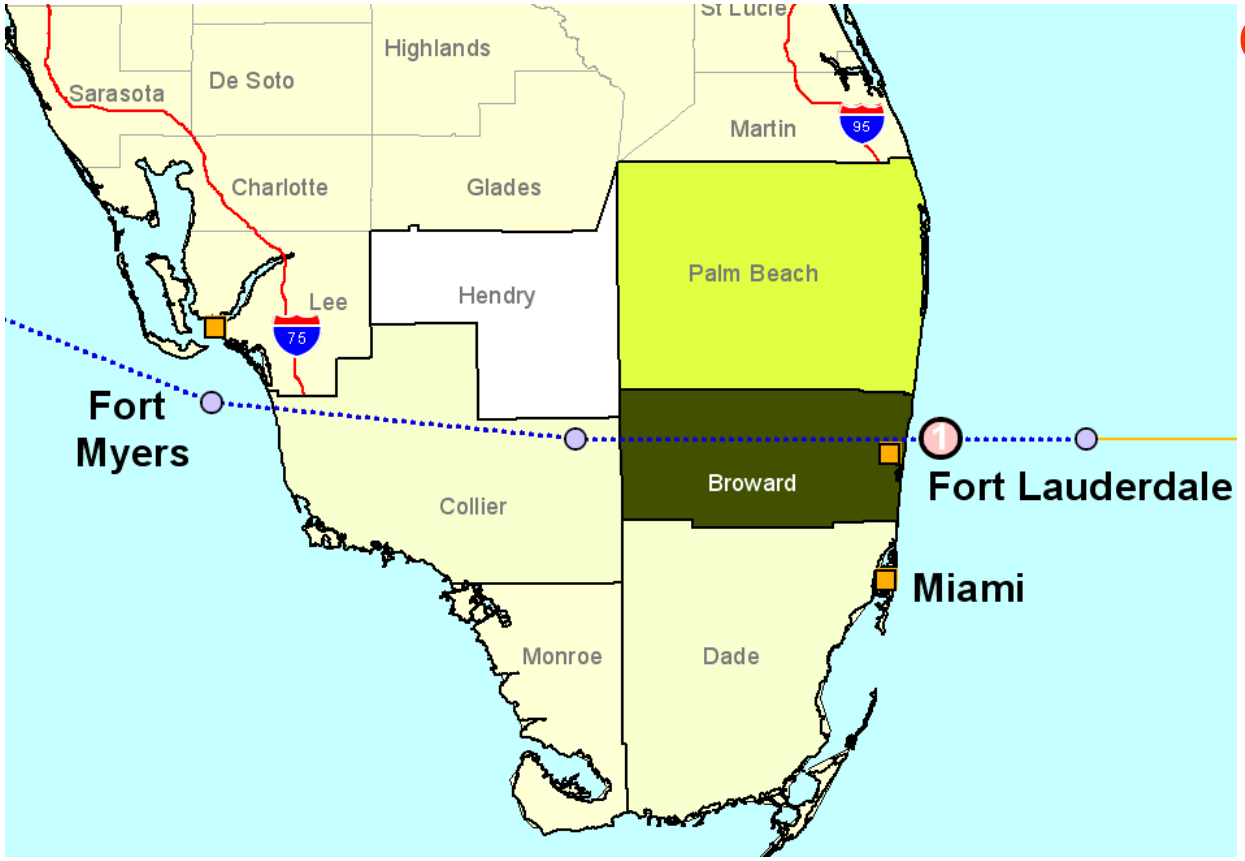
State	County	Households per County
Florida		
	Broward	519,000
	Collier	1,000
	Dade	10,000
	Hendry	1,000
	Palm Beach	123,000
TOTAL		654,000

The number of households estimated to be within hurricane force winds comes from Census 2000 values.

Details about this model may be obtained at https://englink.usace.army.mil or contact ENGLink at 1-877-936-4546

Hurricane Katrina Temporary Roofing Model Results

For Official Use Only!



6

Most Probable Landfall Temporary Roofing Model Results

Florida – 10,400

Model results per county on following page

This model is based on a Category 1 storm making landfall in near proximity to Fort Lauderdale, FL.

Information provided on this page displays a Category 1 storm making landfall near Fort Lauderdale, FL. These projections are based on information from the NHC ***(1500 EDT 08/25/2005)*** forecast. The amount of temporary roofing that may be required is based on 2% of housing units damaged in CAT 1 wind area. This only indicates possible need – not necessarily a mission to repair roofs.

Details about this model may be obtained at https://englink.usace.army.mil or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers

Hurricane Katrina Roofing Model

Generated By:
Terry Siemsen, LRL 1530 EDT 08/25/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Katrina Temporary Roofing Model Results

Landfall Expected In Less Than 6 Hours

For Official Use Only!

State	County	Houseunits per County
Florida		
	Broward	8,500
	Collier	> 100
	Dade	200
	Hendry	> 100
	Palm Beach	1,700
TOTAL		10,400

THIS IS AN EXPERIMENTAL MODEL !! THE VALUES ARE PRELIMINARY AND SHOULD BE CONSIDERED A GUIDE BUT NOT AN ABSOLUTE VALUE !!

The amount of temporary roofing that may be required is based on 2% of housing units damaged in CAT 1 wind area. This only indicates possible need – not necessarily a mission to repair roofs.

Details about this model may be obtained at https://englink.usace.army.mil or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers

Hurricane Katrina Roofing Model

Generated By:
Terry Siemsen, LRL 1530 EDT 08/25/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Katrina Temporary Housing Model Results

Landfall Expected In Less Than **6** Hours

For Official Use Only!

Most Probable Landfall Temporary Housing Model Results

Florida – 000

Model results per county on following page

There is no expected temporary housing need due to winds

This model is based on a Category 1 storm making landfall in near proximity to Fort Lauderdale, FL.

Information provided on this page displays a Category 1 storm making landfall near Fort Lauderdale, FL. These projections are based on information from the NHC ***(1500 EDT 08/25/2005)*** forecast. The amount of temporary housing that may be required is based on no housing need in CAT 1 wind area.

Details about this model may be obtained at https://englink.usace.army.mil or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers

Hurricane Katrina Housing Model

Generated By:
Terry Siemsen, LRL 1530 EDT 08/25/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Katrina Temporary Housing Model Results

Landfall Expected In Less Than **6** Hours

For Official Use Only!

There is no expected temporary housing need due to winds

THIS IS AN EXPERIMENTAL MODEL !! THE VALUES ARE PRELIMINARY AND SHOULD BE CONSIDERED A GUIDE BUT NOT AN ABSOLUTE VALUE !!

The amount of temporary housing that may be required is based on no housing need in CAT 1 wind areas.

Details about this model may be obtained at https://englink.usace.army.mil or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers

Hurricane Katrina Housing Model

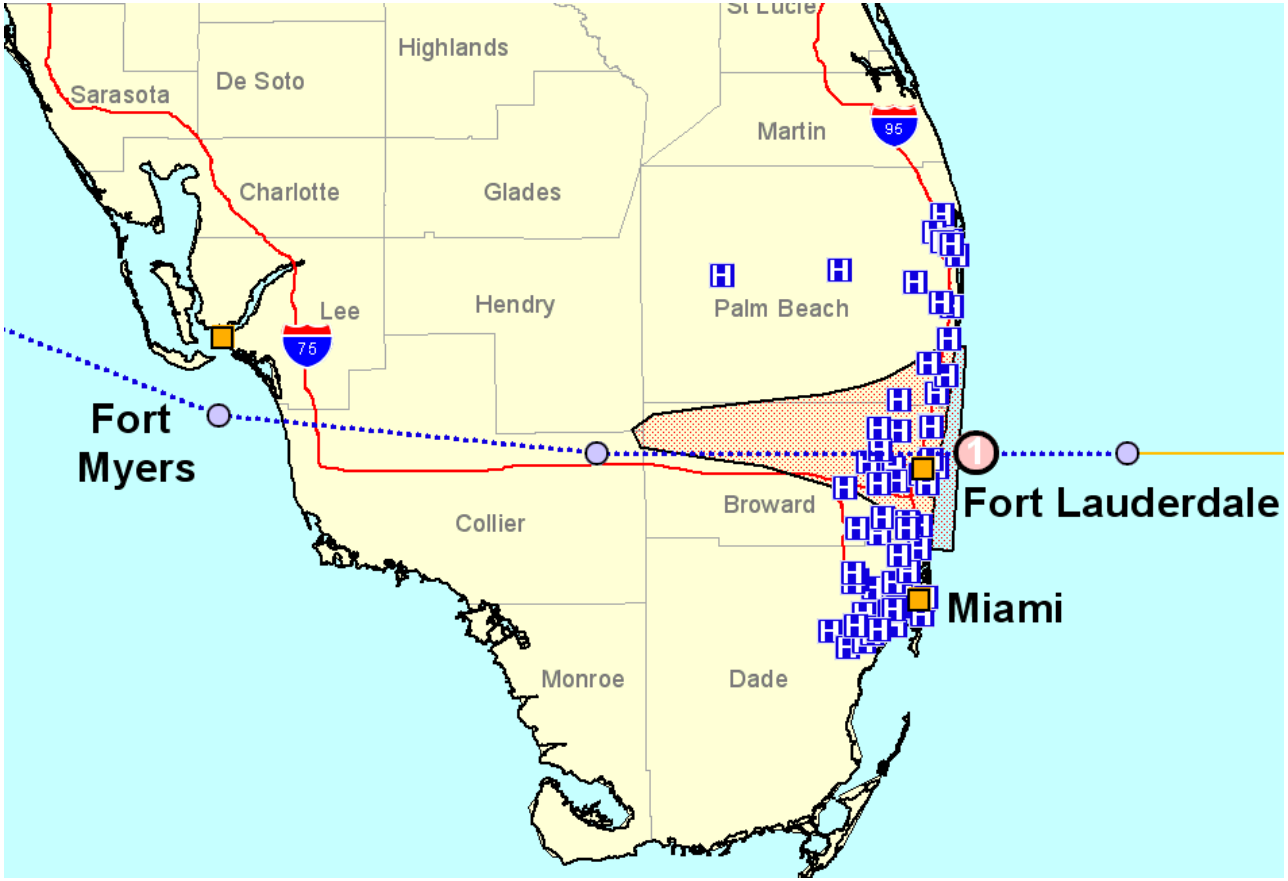
Generated By:
Terry Siemsen, LRL 1530 EDT 08/25/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Katrina Hospitals

Landfall Expected In Less Than 6 Hours

For Official Use Only!



Most Probable Landfall Hospitals inside Hurricane Force Winds or In Less Than 25 miles of Hurricane Force Winds

Critical Infrastructure – 71 Hospitals

This model is based on a Category 1 storm making landfall in near proximity to

Information provided on this page displays a Category 1 storm making landfall near Fort Lauderdale, FL. These projections are based on information from the NHC ***(1500 EDT 08/25/2005)*** forecast.

The number of hospitals included in this output are those that would be included within estimated hurricane force winds (data source: HAZUS MH).

Details about this model may be obtained at **https://englink.usace.army.mil** or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers

Hurricane Katrina Hospitals

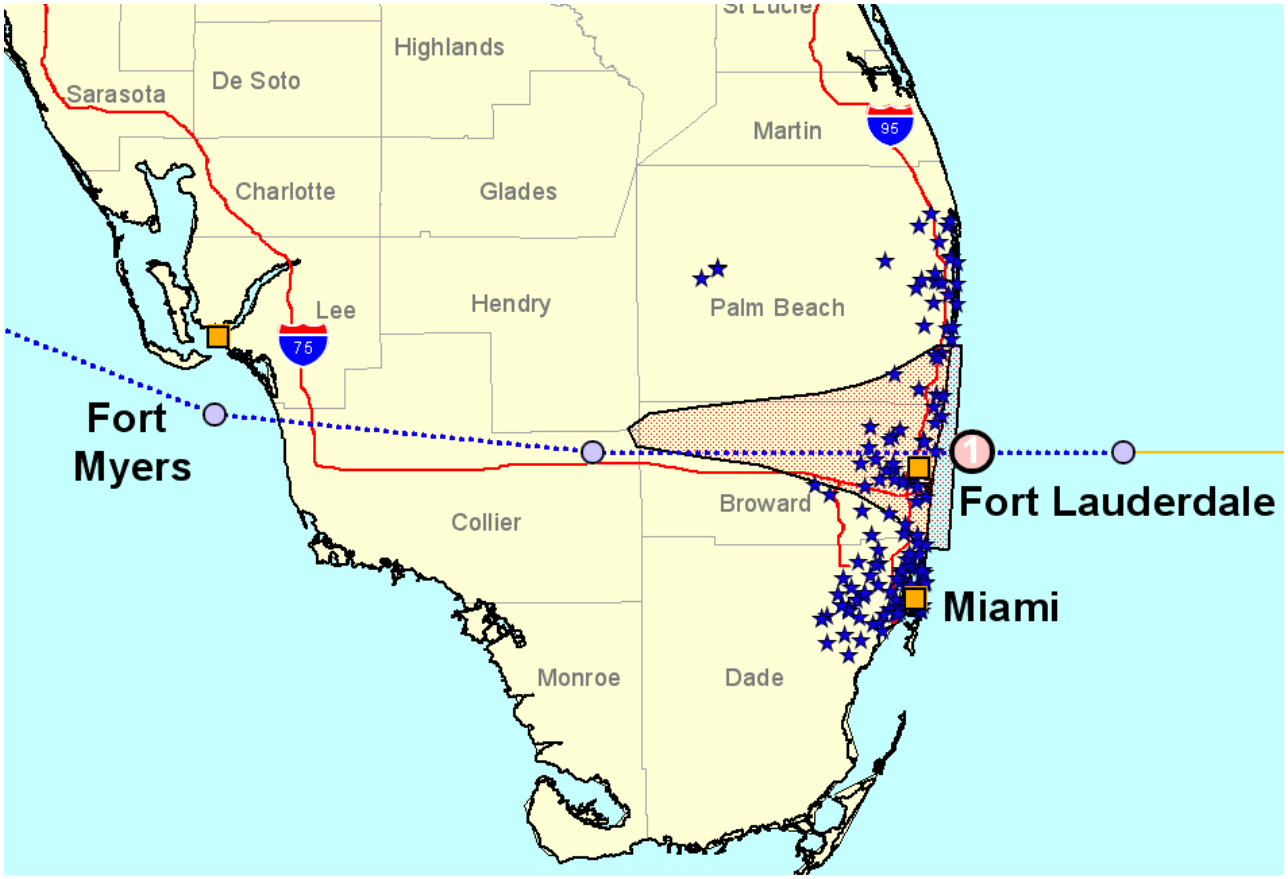
Generated By:
Terry Siemsen, LRL 1530 EDT 08/25/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Katrina Police Stations

Landfall Expected In Less Than 6 Hours

For Official Use Only!



Most Probable Landfall Police Stations inside Hurricane Force Winds or In Less Than 25 miles of Hurricane Force Winds

Critical Infrastructure – 147 Police Stations

This model is based on a Category 1 storm making landfall in near proximity to Fort Lauderdale, FL.

Information provided on this page displays a Category 1 storm making landfall near Fort Lauderdale, FL. These projections are based on information from the NHC ***(1500 EDT 08/25/2005)*** forecast.

The number of police stations included in this output are those that would be included within estimated hurricane force winds (data source: HAZUS MH).

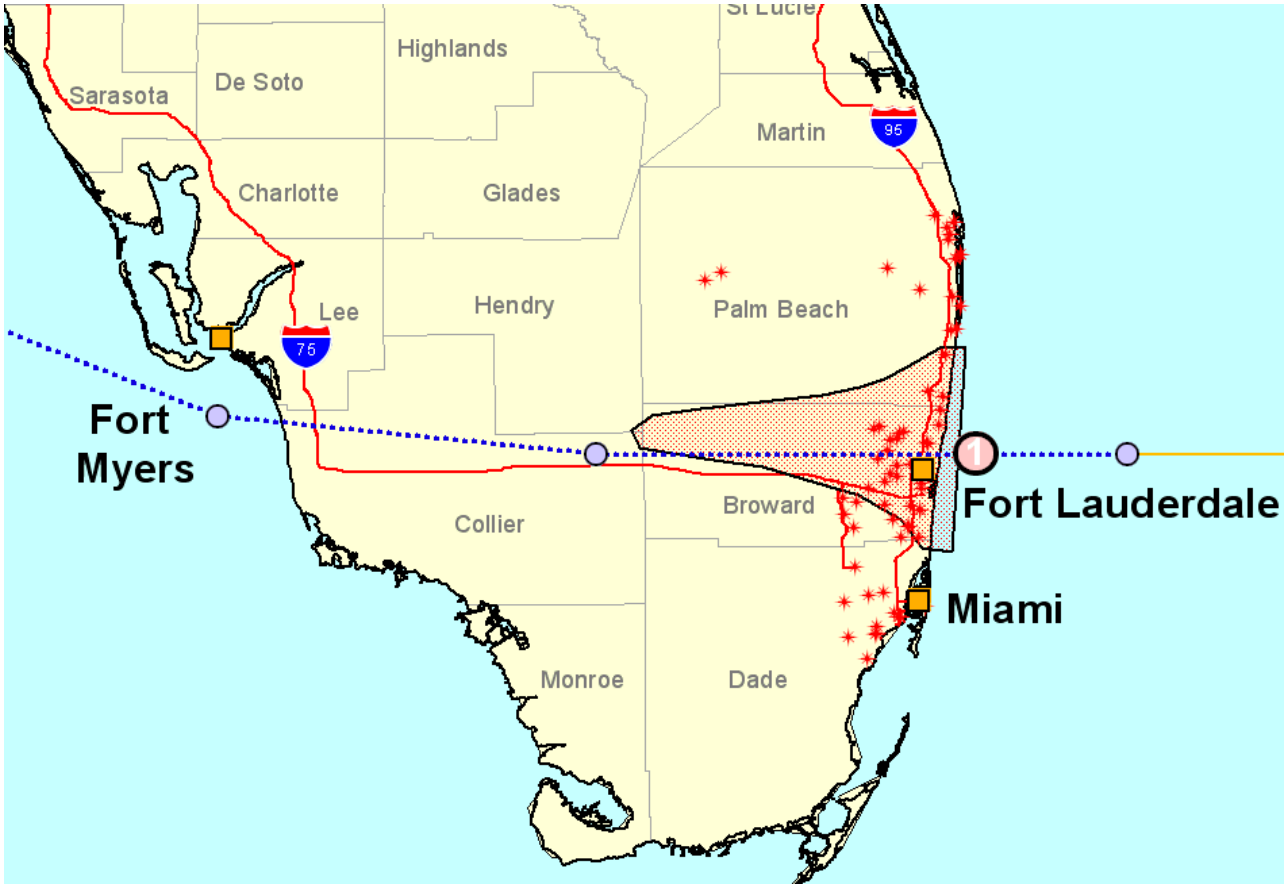
Details about this model may be obtained at **https://englink.usace.army.mil** or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers	**Hurricane Katrina Police Stations**
Generated By: Terry Siemsen, LRL 1530 EDT 08/25/2005	
Sources: HURREVAC LRL-DEBRIS	Page 17 of 18

Hurricane Katrina Fire Stations

Landfall Expected In Less Than 6 Hours

For Official Use Only!



Most Probable Landfall Fire Stations inside Hurricane Force Winds or In Less Than 25 miles of Hurricane Force Winds

Critical Infrastructure – 68 Fire Stations

This model is based on a Category 1 storm making landfall in near proximity to Fort Lauderdale, FL.

Information provided on this page displays a Category 1 storm making landfall near Fort Lauderdale, FL. These projections are based on information from the NHC ***(1500 EDT 08/25/2005)*** forecast.

The number of fire stations included in this output are those that would be included within estimated hurricane force winds (data source: HAZUS MH).

Details about this model may be obtained at **https://englink.usace.army.mil** or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers	**Hurricane Katrina Fire Stations**
Generated By: Terry Siemsen, LRL 1530 EDT 08/25/2005	
Sources: HURREVAC LRL-DEBRIS	Page 18 of 18